

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Canceled)
2. (Canceled)
3. (Canceled)
4. (Canceled)
5. (Canceled)
6. (Canceled)
7. (Canceled)
8. (Canceled)
9. (Canceled)
10. (Canceled)
11. (Canceled)
12. (Canceled)
13. (Canceled)
14. (Canceled)
15. (Canceled)
16. (Canceled)
17. (Canceled)
18. (Canceled)
19. (Canceled)

20. (Canceled)

21. (Canceled)

22. (Canceled)

23. (Canceled)

24. (Canceled)

25. (Canceled)

26. (Canceled)

27. (Canceled)

28. (Canceled)

29. (Canceled)

30. (Canceled)

31. (Canceled)

32. (Canceled)

33. (Canceled)

34. (Canceled)

35. (Canceled)

36. (Canceled)

37. (Canceled)

38. (Canceled)

39. (Currently Amended) A method of uniformly coating a cylindrical sputtering target comprising:

a. mounting a cylindrical sputtering target to a target assembly;

- b. moving the cylindrical sputtering target at a constant or variable rate rotationally, laterally, longitudinally or any combination thereof;
- c. activating one or more plasma spray devices to generate one or more plasma streams for plasma spraying particles of a coating material toward a deposition zone on the cylindrical sputtering target;
- d. plasma spraying particles of coating material on the cylindrical sputtering target until a uniform coating of desired thickness is achieved; and
- e. stopping and restarting the lateral, longitudinal or rotational motion of the cylindrical sputtering target or any combination thereof at varying preprogrammed points during the plasma spraying step while plasma spraying continues.

40. (Canceled)

41. (Original) The method of uniformly coating a cylindrical target of claim 39 further comprising directing gas flow across the plasma streams between the plasma spray devices and the cylindrical target to divert smaller plasma-sprayed particles and other small particles beyond the cylindrical target.

42. (Original) The method of uniformly coating a cylindrical target of claim 39 further comprising directing a gas flow or systematic blast onto a surface location of the cylindrical target proximate to the deposition zone before entering the plasma stream to preclean the deposition zone.

43. (Original) The method of uniformly coating a cylindrical target of claim 41 further comprising directing a gas flow or systematic blast onto a surface location of the cylindrical target proximate to the deposition zone before entering the plasma stream to preclean the deposition zone.
44. (Currently Amended) A method of coating a cylindrical sputtering target comprising:
- a. mounting a cylindrical sputtering target to a target assembly;
 - b. moving the cylindrical sputtering target at a constant or variable rate rotationally, laterally, longitudinally or any combination thereof;
 - c. activating one or more plasma spray devices to generate one or more plasma streams for plasma spraying particles of a coating material toward a deposition zone on the cylindrical sputtering target;
 - d. directing gas flow across the plasma streams between the plasma spray devices and the cylindrical sputtering target to divert smaller plasma-sprayed particles and other small particles beyond the cylindrical sputtering target;
 - e. plasma spraying particles of coating material on the cylindrical sputtering target until a uniform coating of predetermined thickness is attained; and
 - f. varying the rate of lateral, longitudinal or rotational motion of the cylindrical sputtering target or any combination thereof at preprogrammed points during the plasma spraying step while plasma spraying continues.

45. (Previously presented) The method of coating a cylindrical target of claim 44 wherein step f. further comprises stopping and restarting the lateral, longitudinal or rotational motion of the cylindrical target or any combination thereof at varying points.
46. (Original) The method of coating a cylindrical target of claim 44 further comprising directing a gas flow or systematic blast of gas onto a surface location of the cylindrical target proximate to the deposition zone before entering the plasma stream to preclean the deposition zone.
47. (Original) The method of coating a cylindrical target of claim 44 further comprising maintaining the gas flow at a rate that will divert particles smaller than a predetermined size beyond the deposition zone, while allowing larger particles to deposit on the cylindrical target within the deposition zone.
48. (Original) The method of coating a cylindrical target of claim 47 wherein said predetermined size is less than 10 micrometers.
49. (Original) The method of coating a cylindrical target of claim 44 wherein the gas flow comprises an anaerobic gas.
50. (Original) The method of coating a cylindrical target of claim 49 wherein the anaerobic gas is nitrogen.

51. (Original) The method of coating a cylindrical target of claim 44 wherein the gas flow comprises a reducing gas.
52. (Canceled)
53. (Currently Amended) A method of coating a cylindrical sputtering target comprising:
- a. mounting a cylindrical sputtering target to a target assembly;
 - b. moving the cylindrical sputtering target at a variable or constant rate rotationally, laterally, longitudinally or any combination thereof;
 - c. activating one or more plasma spray devices to generate one or more plasma streams for plasma spraying particles of a coating material toward a deposition zone on the cylindrical sputtering target;
 - d. directing a gas flow or systematic blast of gas onto a surface location of the cylindrical sputtering target proximate to the deposition zone before entering the plasma streams to preclean the deposition zone;
 - e. plasma spraying particles of coating material on the cylindrical sputtering target until a uniform coating of predetermined thickness is attained; and
 - f. stopping and restarting the lateral, longitudinal or rotational motion of the cylindrical sputtering target or any combination thereof at varying preprogrammed points during the plasma spraying step while plasma spraying continues.
54. (Currently Amended) A method of uniformly coating a cylindrical sputtering target comprising:
- a. mounting a cylindrical sputtering target to a target assembly;

- b. moving the cylindrical sputtering target at a constant or variable rate rotationally, laterally, longitudinally or any combination thereof;
- c. activating one or more plasma spray devices to generate one or more plasma streams for plasma spraying particles of a coating material toward a deposition zone on the cylindrical sputtering target;
- d. plasma spraying particles of coating material on the cylindrical sputtering target until a uniform coating of desired thickness is achieved; and
- e. varying the rate of lateral, longitudinal or rotational motion of the sputtering target or any combination thereof at preprogrammed points during the plasma spraying step while plasma spraying continues.